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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,160	06/27/2003	Tajul Arosh Baroky	70030473-1	7866

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AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
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Loveland, CO 80537-0599

EXAMINER

GUHARAY, KARABI

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/609,160

Applicant(s)

BAROKY ET AL.

Examiner

Karabi Guharay

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

In this instant case, applicant mentioned various prior arts in the specification, it is suggested that applicant filed an IDS including all the cited references in the specification.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: -----WHITE LIGHT EMITTING DEVICE USING CYAN LED -----.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-12 & 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Odaki et al. (US 6521915).

Regarding claim 1, Odaki et al. disclose a light emitting device (Fig 1A & 1B) comprising a cyan (blue green LED 1) which emits light in the range 400nm-600nm (lines 9-12 of column 4), and a phosphor composition (4) positioned to receive light from the cyan LED, the phosphor composition capable of absorbing light from cyan LED and emitting red light (lines 3-8 of column 4 & lines 41-55 of column 5).

Regarding claim 2, Odaki et al. disclose a white light emitting device (lines 5-6 of column 1).

Regarding claims 3 & 14-15, Odaki et al. disclose that the phosphor composition emits light having a wavelength in the range of about 600 nm to about 650 nm having a peak in the range of at 630 nm (lines 27-28 of column 4).

Regarding claim 4, Odaki et al. disclose that the phosphor composition is a conformal coating disposed on the surface of the cyan LED (see Fig 1B).

Regarding claim 6, Odaki et al. disclose that the cyan LED is disposed in a recess formed in a substrate (see Fig 1B & Fig 6) and the phosphor composition is disposed on a surface of the substrate (3, 27) wherein the surface is reflective (lines 17-23 of column 7).

Regarding claims 7 & 9, Odaki et al. disclose that the phosphor composition comprises a clear polymer matrix having phosphor particles suspended therein (lines 59-62 of column 5 & lines 21-27 of column 6) the clear polymer matrix being disposed in the recess around the cyan LED (Fig 1A & Fig 1B), and clear polymer matrix having

phosphor particles shaped as a lens, positioned to receive light from the cyan LED and to direct light from the light emitting device (see Fig 2A –Fig 4).

Regarding claim 8, Odaki et al. disclose that the phosphor composition is disposed on a surface of a lens (Fig 3 & Fig 4) positioned adjacent the cyan LED (lines 1-23 of column 7).

Regarding claims 10-12, Odaki et al. disclose that the phosphor composition comprises CaS: Eu^{2+} (lines 27-28 of column 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 13 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Odaki et al. as applied to claim 1.

Regarding claims 5 & 16, Odaki et al. disclose covering member 21 (see Fig 3) formed of phosphor composition (4) has a thickness of 0.35 mm, and in Fig 1B the thickness of the conformal phosphor coating is not specifically disclosed by Odaki et al.,

Further Odaki is silent about the diameter of the phosphor particles, as claimed in claim 16.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to find the claimed range of thickness, since it has been

held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. MPEP 2144.05 II A

Regarding claim 13, Odaki et al. meet all the limitations of claim 13 except for the material $\text{Mg}_4\text{GeO}_5.5\text{F:Mn}^{4+}$ or ZnS:Mn^{2+} .

However, the claimed materials are well known red emitting phosphor.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use these red emitting phosphor instead of CaS:Eu^{2+} , since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. See MPEP 2144.07.

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure : Mitomo et al. (US 6776927).

(1) Butterworth (US 5929999): teaches that the material $\text{Mg}_4\text{GeO}_5.5\text{F:Mn}^{4+}$ is a red emitting phosphor.

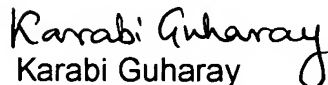
(2) Stewart (US 5302966): teaches that the material ZnS:Mn^{2+} is a red emitting phosphor.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (571) 272-2452. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Karabi Guharay
Patent Examiner
Art Unit 2879